

ecology and environment, inc.



CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961

International Specialists in the Environment

MEMORANDUM

TO:

Roy Crossland, EPA/DPO

FROM:

Joseph Davis, E & E/TATH

THRU:

Joe Chandler, E & E/TATL

DATE:

June 30, 1994

SUBJECT: Site Assessment: Carter Carburetor Manufacturing Facility,

2800-2840 N. Spring Street, St. Louis, Missouri

TDD: T07-9403-0001 PAN: EMO1034SBA EPA/OSC: Don Hamera

INTRODUCTION

The Ecology & Environment, Inc.(E & E), Technical Assistance Team (TAT) was tasked by the United States Environmental Protection Agency (EPA) Emergency Planning and Response (EP&R) Branch to conduct a site reconnaissance and assessment at the former Carter Carburetor manufacturing facility located at 2800 to 2840 North Spring Avenue in Site activity included the assessment and St. Louis, Missouri. documentation of site conditions, and the collection and management of air, wipe, and dust samples. A health and safety plan was produced prior to initiation of site work. Background information concerning this site was obtained from the EPA, the Missouri Department of Natural Resources (MDNR), the City of St. Louis, past and present property owners, and other individuals associated with the site. A summary report documenting all site activity was tasked after completion of field work.

BACKGROUND

The former Carter Carburetor facility manufactured equipment for gasoline and diesel-powered engines dating back to the 1930's. Aluminum and zinc were die cast and machined into carburetor components. Those components were treated with protective coatings and assembled on site. Materials related to this manufacturing process may have included polymers and resins for coatings and metal-treating solutions containing cyanide, lead, cadmium, chromium, and other metals. associated with the manufacturing process included coolants, cutting fluids, lubrication and hydraulic oils, dielectric fluids from transformers, and possibly asbestos.

Carter Carburetor and Carter Automotive Products were subsidiaries

JD/JM



T079403001/EM01034SBA/D

SUPERFUND RECORDS

of ACF Industries, Inc. ACF acquired the site property prior to the 1930's. In the mid-1980's, ACF closed the facility and dismantled most of the equipment. On April 26, 1985, the Land Reutilization Authority of St. Louis (LRA) accepted title of the property from ACF. LRA was informed by ACF that electrical equipment on site contained polychlorinated biphenyls (PCBs). On October 29, 1991, a large portion of the site was sold to George Moore, president of Carter Building Inc. (CBI). Currently, CBI owns the west half of the facility and the LRA owns the northeastern portion of the facility. The irregular shaped building does not have a southeast quadrant. CBI is currently leasing portions of the building to other businesses. The south end of the second floor is leased to a plastics company and the north end of the first floor is leased to a metal fabricating company. A garage in the east-central portion of the building is leased to Mac's Automotive Repair. A site sketch is presented as Attachment A.

On November 16, 1993, and January 6, 1994, under Technical Direction Document (TDD) T07-9310-0027B, TAT conducted limited sampling in areas that were known or suspected to be contaminated with PCBs. Eighteen samples consisting of three soil samples, 12 wipe samples, one water sample, and two waste oil samples were collected and analyzed for PCBs. Samples indicated PCB concentration as high as 180,000 mg/kg in solids found outside of the building and 410,000 µg/100 cm on surfaces inside of the building. Sediment sampled from an interior floor drain indicated 4,800 mg/kg PCBs. All samples exceed cleanup levels established under the Toxic Substances Control Act (TSCA). The PCB Spill Cleanup Policy contained in 40 CFR 761 Subpart G applies to releases of materials containing PCBs at concentrations of 50ppm or greater which occurred after May 4, 1987. The date and concentration of materials released are unknown. While old spills require site specific evaluation, the PCB Spill Cleanup Policy as described in this study has been included as a general reference only. Two samples that were analyzed for total metals indicated the presence of lead, arsenic, and cadmium.

Areas within the CBI property that were sampled during the November 16, 1993, and January 6, 1994, site assessments include a vaulted pump room near the center of the building that contained pumps, old boilers, and other equipment. This room formerly housed electrical Substation # 1 and is a confirmed area of PCB contamination. During prior cleanup activity in this area, contractors removed PCB transformers and a PCB-contaminated concrete transformer pad. A floor drain near the northwest corner of the concrete removal area is also known from the previous study to be contaminated with PCBs. Based on the location of city sewers, it is thought that this drain is connected to a 12-inch sewer line flowing south along Spring Street. At the east wall of the warehouse area is an interior drive-through door leading to the LRA property. Prior investigations have indicated that a PCB oil spill occurred just beyond the doorway, below electrical Substation # 3, which is located on the roof of LRA property.

Areas within the LRA property that were sampled during the previous study include the area around and below the transformers at Substation # 3 located on the second floor roof of the LRA building where it abuts

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CBI property. Prior studies have indicated that this substation has leaked PCB-contaminated fluid down the side of the wall onto the floor of LRA property. Another platform-mounted substation, Substation # 4, near the northeast corner of the LRA building, was also known to be contaminated with PCBs. A floor plan of the former Carter Carburetor facility is presented as Attachment B.

Some of the interior surfaces of the facility are contaminated by CBs at levels above 10 $\mu g/100$ cm and may pose a health risk to personnel currently working at the facility. The PCBs may also migrate outside the facility through tracking by personnel and equipment as well as through the sewer system or stormwater runoff that may have become contaminated with PCBs. Based on this information, it was decided that further site characterization was necessary.

SITE ACTIVITY

TATM Joe Davis prepared a work plan specifying sampling events at the former Carter Carburetor facility. The primary objectives of the plan were to collect sufficient data to document the potential for PCB exposure to personnel currently working at the facility, and to collect data that would further delineate the extent of contamination within the building. The plan specified the collection of ambient air samples from heavy traffic areas in each of the facilities currently being utilized at the site. In addition to air samples, wipe and dust samples were to be randomly collected throughout the utilized and non-utilized portions of the facility.

On March 10, 1994, TAT performed decontamination and calibration of eight General Metal Works Modified High Volume PS-1 air samplers (PS-1 sampler) in preparation for the sampling event. Each high volume air sampler utilized a glass fiber filter (GFF) with a polyurethane foam (PUF) backup absorbent cartridge. All units were set to sample ambient air at a rate 200-240 L/minute as specified in EPA Method T04.

On March 15, 1994, TATMs Dave Kinroth, Ed Martin, and Joe Davis met with EPA On Scene Coordinator (OSC) Don Hamera to set up PS-1 air samplers. Two PS-1 samplers were collocated in the plastics shop, George Moore's work area, Mac's auto repair shop, and the metal fabrication shop. All PS-1 samplers were started between 0730 and 0840 hours on the morning of March 16, and were allowed to collect air samples through an 8-hour work shift at each location. Standard field documentation, including sample tags, field sheets, and chain-of-custody procedures, were followed. All air sample modules were placed in 32-ounce jars, packed on ice in a cooler, and hand delivered by the OSC to the EPA Region VII Laboratory in Kansas City, Kansas.

The following air samples were collected at these locations.

Sample # Location

RZ3JJ001 Inside, near George Moore's office RZ3JJ001Y " " " " "

RZ3JJ002 Inside Mac's auto repair shop
RZ3JJ002Y " " " " " "
RZ3JJ003 Second Floor, plastics shop
RZ3JJ003Y " " " " "

RZ3JJ004 Rear of metal fabrication shop RZ3JJ004Y " " " " " " "

At each location, one of the collocated PS-1 samplers was equipped with a clean GFF/PUF cartridge. The other PS-1 sampler was equipped with a PUF cartridge spiked at the action level of 0.5 mg/m3 with 50 milligrams of Aroclor 1260 (sample # qualified with a "Y"). Aroclor 1260 was identified in previous studies as the most prevalent PCB contaminant on site. Because Aroclor 1260 does not have a documented action level, the action level for Aroclor 1254 (0.5mg/m) was used. For the purposes of spiking at the action level, a sample volume of 100 m was assumed.

Table 1 summarizes spike recovery percentages at each location based on actual air volumes using the equation: $<[concentration(mg/m^3) \times volume(m^3)] / 50 mg> X 100.$

TABLE 1

Sample #	Concentration	Air Volume	Recovery %
RZ3JJ001Y	0.460	100.9	92.8
RZ3JJ002Y	0.430	105.4	90.6
RZ3JJ003Y	0.410	107.3	88.0
RZ3JJ004Y	0.520	86.1	89.5

The maximum concentration of PCB detected in the ambient air samples was 0.00011 mg/m of Aroclor 1242. This is below the documented NIOSH action level of 0.001 mg/m and the OSHA action level of 1 mg/m (skin).

Concurrent with the air sampling activities, TAT and the OSC randomly collected 50 wipe samples on floors and other surfaces throughout the site using 3-by 3-inch hexane-soaked Gauze pads. Twenty-two of the wipe samples were collected from surfaces in high traffic areas within the facilities currently being utilized. Twenty-eight other wipe samples were collected throughout the non-utilized portions of the site. In addition to the wipe samples, six dust samples and one water sample were collected at various points on site. One 55-gallon drum located in the north LRA parking lot was also sampled. The drum contained an unknown brown oily liquid.

Table 2 lists the locations of all other samples collected during the March 15-18 sampling event. The sample locations are further identified on the floor plans (Attachment B). All wipe samples were taken from four separate 25 square centimeter areas for a total of 100 cm surface area using templates and cotton gauze pads saturated with hexane. The water sample was collected in an 80 ounce amber glass container. All solids and waste oil samples were collected and placed

in 8 ounce glass jars. Standard field documentation, including sample tags, field sheets, and chain-of-custody procedures were followed. All samples were packed on ice in a cooler and hand delivered by the OSC to the EPA Region VII Laboratory in Kansas City, Kansas.

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TABLE 2 MARCH 15 -18

Sample #	<u>Media</u>	Location Analysis
RZ3JJ011	wipe	Wood crates, SE corner of Wilco Plastics
RZ3JJ012	wipe	Floor, south corridor of Wilco Plastics
RZ3JJ013	wipe	Floor, west corridor of Wilco Plastics
RZ3JJ014	wipe	North wall of Wilco Plastics (plastics shop)
	wipe	Overhead lights, center of plastics shop
RZ3JJ016	_	Floor, east corridor of plastics shop
RZ3JJ017	_	Desk surfaces, south corridor of plastics shop
RZ3JJ018	wipe	Floor, SW corner of Mac's Auto Shop
RZ3JJ019	wipe	Floor, east room of Mac's Auto Shop
RZ3JJ020	wipe	Wall, east room of Mac's Auto Shop
RZ3JJ021	wipe	Shelves & desk top, Mac's Auto Shop
RZ3JJ022	wipe	Floor, near overhead door to George Moore's office
area of	the war	rehouse
RZ3JJ022D) wipe	Duplicate of RZ3JJ022
RZ3JJ023	wipe	Main driveway corridor(E-W) inside of warehouse near
		George Moore's office
RZ3JJ024	wipe	Driveway corridor(N-S) inside of warehouse near
George	Moore's	office
RZ3JJ025	wipe	Floor, inside George Moore's office
RZ3JJ026	wipe	1st floor inside tool cage, SW corner of CBI
buildir	-	
RZ3JJ027	wipe	West storage room, just north of tool cage in the
south p	portion of	of 1st floor CBI building
RZ3JJ028	wipe	N-S corridor on east side of 1st floor CBI
RZ3JJ029	wipe	N-S corridor on west side of 1st floor CBI
RZ3JJ030	wipe	Southern most E-W corridor of 1st floor CBI
RZ3JJ031	wipe	North end of N-S corridor, east side, 2nd floor CBI
RZ3JJO32		South end of N-S corridor, east side, 2nd floor CBI
RZ3JJO33		South concourse area, west side, 2nd floor CBI
RZ3JJ034		North concourse area, west side, 2nd floor CBI
RZ3JJO35		North end of N-S corridor, east side, 3rd floor CBI
RZ3JJ036	wipe	South end of N-S corridor, east side, 3rd floor CBI
RZ3JJO37	•	South concourse area, west side, 3rd floor CBI
RZ3JJO38	wipe	North concourse area, west side, 3rd floor CBI
RZ3JJ039	wipe	South rooms, 4th floor CBI
RZ3JJ040	-	Main room, east side of 4th floor CBI
RZ3JJ041	•	North end locker room area, 4th floor CBI
RZ3JJO42		Dust from Floor of plastics shop
RZ3JJ043		Dust from 1st floor of CBI
RZ3JJ044	•	Floor, west-central 4th floor CBI
RZ3JJO45	•	Shelves and desk, inside plastics shop office
RZ3JJ046		Dust from 2nd floor of CBI
RZ3JJO47	•	Stairway room adjacent to the metal fab shop and the north end of the building
RZ3JJ048	wipe	N-S corridor, east end, inside of metal fab shop
RZ3JJ049	wipe	Central floor area inside of metal fab shop
RZ3JJ050	wipe	E-W corridor, south end, inside of metal shop
RZ3JJ051	wipe	Office area of metal fab shop

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RZ3JJO52 wipe E-W corridor in central CBI warehouse near sliding door leading into metal fab shop, north of pump room

RZ3JJ053 wipe N-S corridor in north-central CBI warehouse, north of pump room

RZ3JJ054 wipe N-S corridor in north-east end of CBI warehouse

RZ3JJ055 soil Dust, north-central end of CBI warehouse

RZ3JJ056 wipe Field Blank

RZ3JJO57 wipe RZ3JJO58 wipe Coffee room & back office floor, metal fab shop

Floor inside metal fab shop near drive thru door leading into CBI warehouse

RZ3JJ059 wipe Floor under stairs east of pump room

RZ3JJ060 wipe South-central open area, 1st floor LRA building

RZ3JJ061 wipe Center of LRA building just south of Die Cast

building, 1st floor

RZ3JJ062 wipe Stained area near 32-gallon transformer on floor at S-E corner of north die cast building. (The

transformer is lying on its side in the corner of the large room. A 20-by 20-foot stained area appears to be oil drained from the transformer)

RZ3JJ063 soil Solids collected from machine mounting pads in south Die Cast Room (material appears to be historic

accumulation of oily residue related to the manufacturing process) RZ3JJ064 wipe Field blank

RZ3JJ065 Wipe Stained area, central-west in north Die Cast Room (oily stain about 20 feet in diameter)

RZ3JJ066 water Tank sump, central north die cast room

RZ3JJ067 soil North LRA parking lot in pothole down grade from electrical sub-station #4

RZ3JJ068 waste From 55-gallon drum, LRA north parking lot. Drum was labeled #64

RZ3JJ069 wipe on walkway of loading dock at south side of CBI

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FOLLOWUP ACTIVITIES

Table 3 presents an overview of the individual PCB levels detected in the samples that exceed the Toxic Substances Control Act (TSCA) cleanup levels of 10 $\mu g/100$ cm for high-contact solid surfaces and low-contact, indoor, impervious solid surfaces for wipe samples and 10 milligrams per kilogram (mg/kg) for soil samples. Table 3 presents individual PCB concentrations only, while total PCB concentrations at other locations exceeded $10\mu g/100$ cm. The complete Analysis Request Report for the 3-day sampling event is presented as Attachment C.

TABLE 3

Sample #	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260
RZ3JJ022		==	$17 \mu g/100 cm_2^2$
RZ3JJ022D			$24 \mu g/100 cm_2^2$
RZ3JJ023	$14 \mu g/100 cm^2$	$20 \ \mu g/100 cm^2$	$17 \mu \text{g} / 100 \text{cm}^2$
RZ3JJ024		$14 \mu g/100 cm^2$	
RZ3JJ026	$20 \ \mu g/100 cm^2$	$47 \mu g / 100 cm^2$	$10 \ \mu g/100 cm^2$
RZ3JJ027		$10 \mu \text{g} / 100 \text{cm}^2$	
RZ3JJ028	64 μ g/100cm ²	$53 \mu g / 100 cm^2$	
RZ3JJ029	39 $\mu g/100 cm_2^2$	69 µg/100cm ²	14 μ g/100cm ²
RZ3JJ030	$32 \mu g/100 cm^2$	46 $\mu g/100 cm^2$	$11 \ \mu g/100 cm_2^2$
RZ3JJ031		$30 \mu g / 100 cm^2$	$16 \mu \text{g} / 100 \text{cm}^2$
RZ3JJ033	-~	$25 \mu g/100 cm^2$	
RZ3JJ035		$12 \mu g/100 cm^2$	
RZ3JJ036		$21 \ \mu g/100 cm^2$	
RZ3JJ037	40 μ g/100cm ²	$34 \mu g/100 cm^2$	28 $\mu g/100 cm_2^2$
RZ3JJ038	$27 \mu \text{g}/100 \text{cm}^2$	99 $\mu g/100 cm^2$	$15 \mu \text{g} / 100 \text{cm}^2$
RZ3JJ043	78 mg/kg		
RZ3JJ047.	333 $\mu g/100 cm_2^2$	490 μ g/100cm ²	64 µg/100cm ²
RZ3JJ048	$10 \mu \text{g}/100 \text{cm}^2$		
RZ3JJ049	2	$15 \mu g/100 cm^2$	
RZ3JJ050	$10 \ \mu g/100 cm_2^2$	13 μ g/100cm ²	
RZ3JJ052	$11 \mu g / 100 cm_2^2$	18 μ g/100cm ²	
RZ3JJ053	$10 \ \mu g/100 cm_2^2$	13 μ g/100cm ²	
RZ3JJ054	$370 \ \mu g/100 cm^2$	470 μ g/100cm ²	
RZ3JJ055	1,500 mg/kg		
R23JJ058	31 $\mu g/100 cm_2^2$	$27 \mu g/100 cm^2$	
RZ3JJ059	82 μ g/100cm ²	$110 \ \mu g/100 cm^2$	250 μ g/100cm ²
RZ3JJ060	 2	$15 \mu g/100 cm^2$	$10 \ \mu g/100 cm_2^2$
RZ3JJ061	$52 \mu g/100 cm^2$	60 μg/100cm ²	23 μ g/100cm ²
RZ3JJ062		$16,000 \mu g/100 cm^2$	$120,000 \mu \text{g}/100 \text{cm}^2$
RZ3JJ063	3,300 mg/kg	·	
RZ3JJ065	$24,000 \mu g/100 cm^2$	$3,400 \mu g/100 cm^2$	$1,000 \ \mu g/100 cm^2$
RZ3JJ067			1,600 mg/kg
RZ3JJ068	2	2	55 mg/kg 2
RZ3JJ069	$71 \mu g/100 cm^2$	210 μ g/100cm ²	84 μ g/100cm ²

Soil samples RZ3JJ042, RZ3JJ043, RZ3JJ046, and RZ3JJ055, which were also analyzed for total metals, indicated total lead levels of 2,070 mg/kg, 1,170 mg/kg, 2,170 mg/kg, and 3,840 mg/kg, respectively. OSWER

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directive 9355.4-02 has established an interim action level of 500 to 1,000 mg/kg total lead in soil. EPA Region VII policy has established an action level of 500 ppm total lead in soil in residential areas and 1,000 mg/kg in industrial settings. Arsenic and cadmium were also detected at levels as high as 21.0 mg/kg and 40.6 mg/kg, respectively.

SUMMARY

TAT was tasked by Region VII EPA/EP&R to conduct site reconnaissance and assessment at the former Carter Carburetor manufacturing facility located at 2800 to 2840 North Spring Avenue St. Louis, Missouri. Sixty-two samples consisting of four ambient air samples, fifty wipe samples, six soil samples, one water sample, and one waste oil sample were collected and analyzed for PCBs. Samples indicated PCB levels as high as 58 ug/100cm on surfaces within actively utilized areas of the facility and 3,300 mg/kg in solids found on the floors and 136,000 μ g/100 cm on surfaces within the non-utilized portions of the site. The maximum concentration of PCB detected in ambient air samples was 0.00011 mg/m of Aroclor 1242. This is below the documented NIOSH level of 0.001 mg/m and the OSHA action level of 1 mg/m (skin). Three of the soil samples that were analyzed for total metals indicated levels of lead, arsenic, and cadmium as high as 3,840 mg/kg, 21.0 mg/kg and 40.6 mg/kg, respectively.

ATTACHMENTS

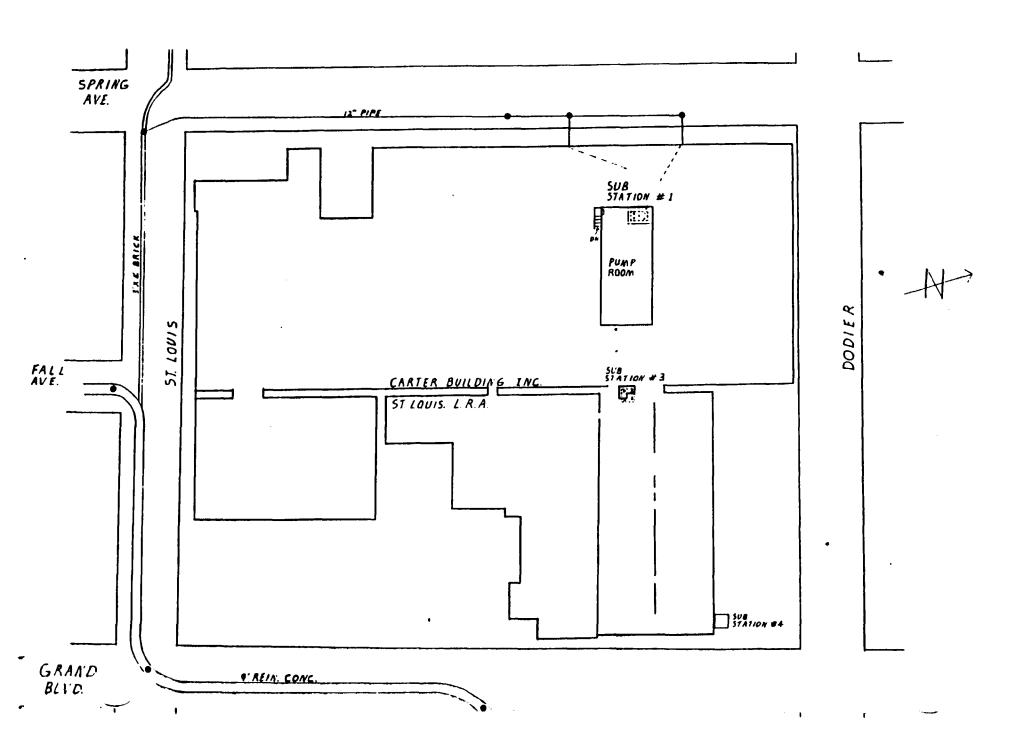
- A: Site Sketch
- B: Former Carter Carburetor Floor Plans, sample locations
- C: Data Transmittals for Sampling Events
- D: Photographic Record

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ATTACHMENT A

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ATTAC: ENT A
FORMER CARTER CARBURETOR SITE



ATTACHMENT

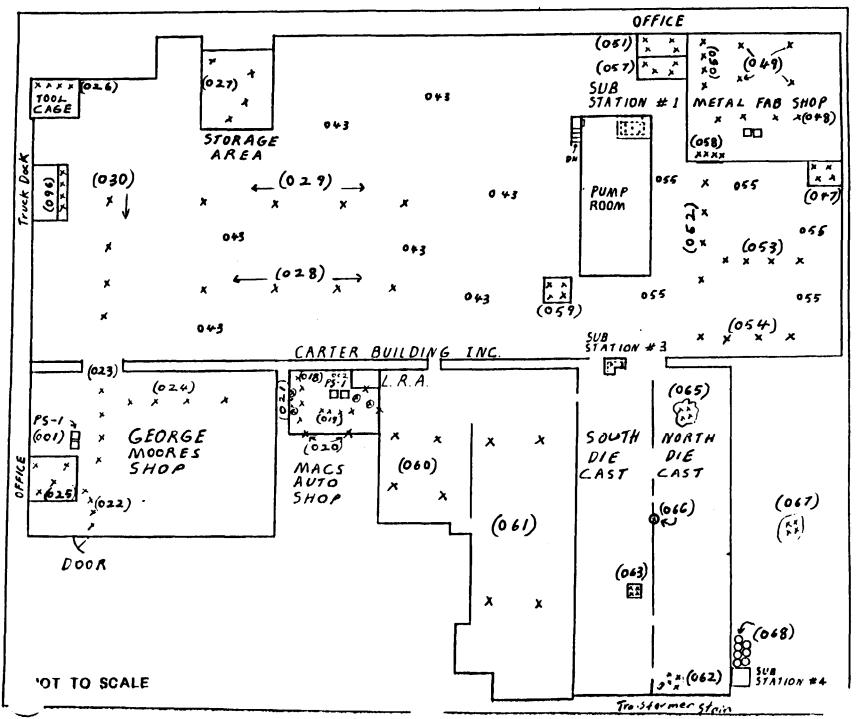
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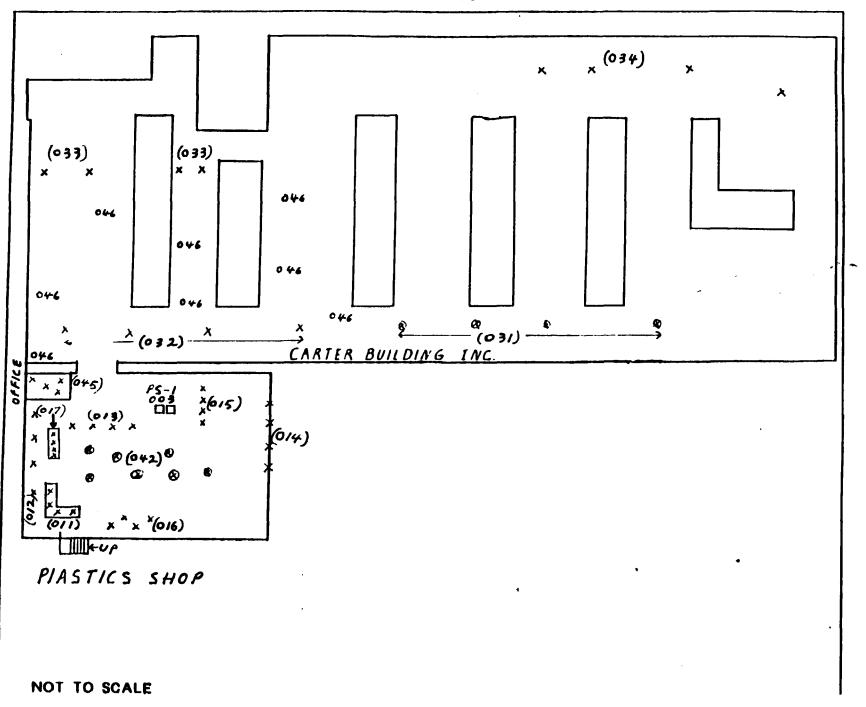
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FIRST FLOOR



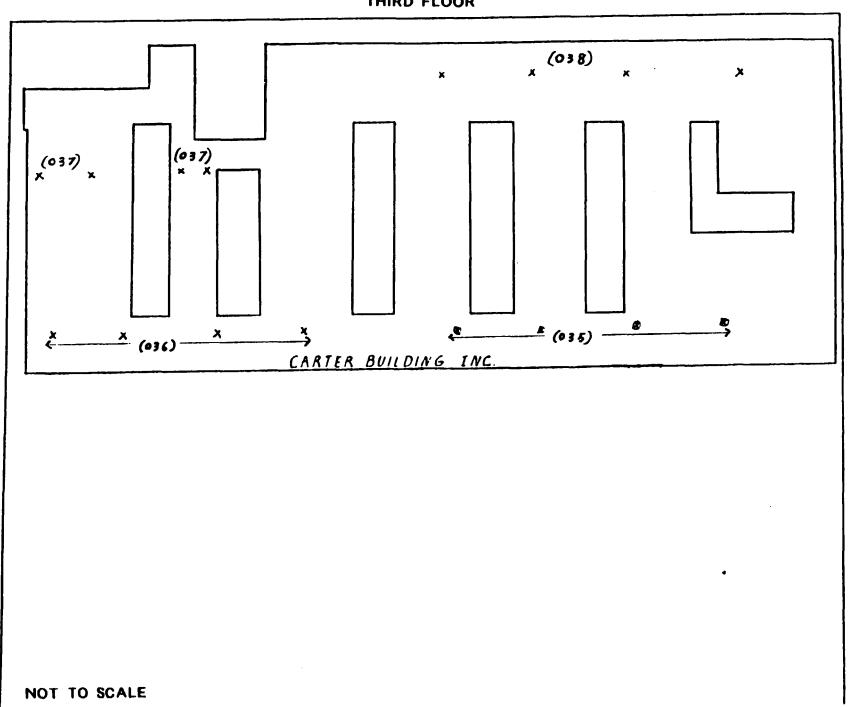
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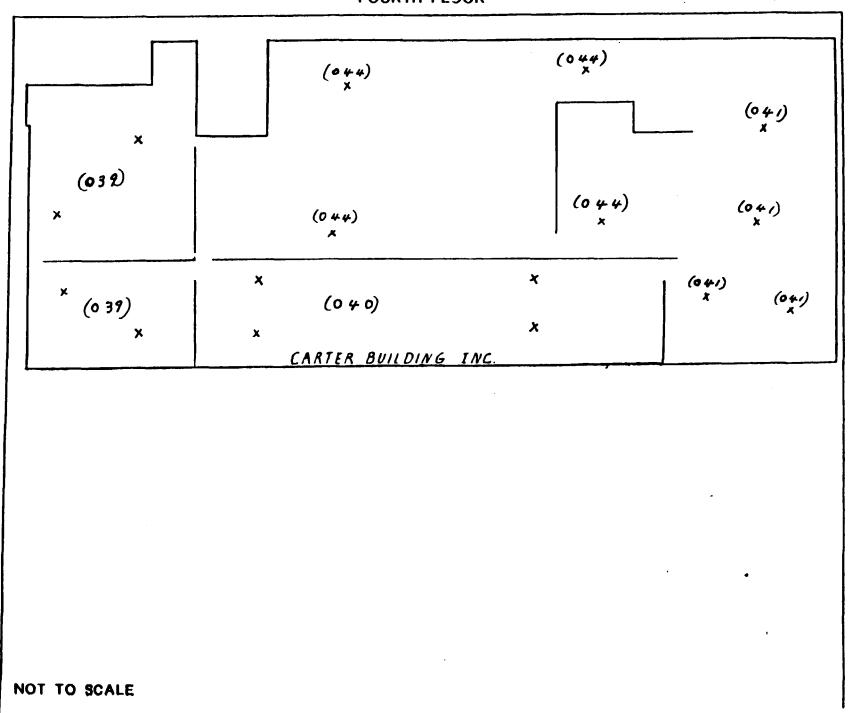
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THIRD FLOOR



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FOURTH FLJOR



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ATTACHMENT

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ATTACHMENT D

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ALL REAL SAMPLES AND FIELD Q.C.

FOR ACTIVITY: RZ3JJ

04/06/94 10:03:50

HAMERA, DON

* FINAL REPORT FY: 94 ACTIVITY: RZ3JJ DESCRIPTION: CARTER CARBURETOR LOCATION: ST. LOUIS

L33 MISSOURI

STATUS: ACTIVE TYPE: SAMPLING - IN HOUSE ANALYSIS PROJECT:

4/20/94. REPORT DUE DATE IS 5/ 2/94.

INSPECTION DATE: LABO DUE DATE IS 3/18/94 ALL SAMPLES RECEIVED DATE: 03/21/94

ALL DATA APPROVED BY LABO DATE: 04/01/94 FINAL REPORT TRANSMITTED DATE: 04/06/94

EXPECTED LABO TURNAROUND TIME IS 30 DAYS EXPECTED REPORT TURNAROUND TIME IS 45 DAYS

ACTUAL REPORT TURNAROUND TIME IS 19 DAYS

SITE CODE: JJ

ACTUAL LABO TURNAROUND TIME IS 11 DAYS

SITE: CARTER CARBURETOR SITE

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             = SAMPLE IDENTIFICATION NUMBER (A 3-DIGIT NUMBER
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                WHICH IN COMBINATION WITH THE ACTIVITY NUMBER
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                AND OCC. PROVIDES AN UNIQUE NUMBER FOR EACH SAMPLE
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                                                                                      = SPECIFIC UNITS IN WHICH RESULTS ARE REPORTED:
                FOR IDENTIFICATION PURPOSES)
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             = QUALITY CONTROL CODE (A ONE-LETTER CODE USED TO
                                                                                               # CENTIGRADE (CELSIUS) DEGREES
               DESIGNATE SPECIFIC QC SAMPLES. THIS FIELD WILL BE BLANK FOR ALL NON-QC OR ACTUAL SAMPLES):
                                                                                              = CUBIC FEET PER SECOND
                                                                                        GPH
                                                                                              = GALLONS PER MINUTE
               B = CAL INCREASED CONCENTRATION FOR A LAB SPIKED DUP SAMPLE
                                                                                        IN
                                                                                               = INCHES
               D * MEASURED VALUE FOR FIELD DUPLICATE SAMPLE
                                                                                        I.D. = SPECIES IDENTIFICATION
               F = MEASURED VALUE FOR FIELD BLANK
G = MEASURED VALUE FOR METHOD STANDARD
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                                                                                              = KILOGRAH
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               H . TRUE VALUE FOR METHOD STANDARD
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               K = CAL INCREASED CONCENTRATION FOR FIELD SPIKED DUP SAMPLE
                                                                                              = MILLIGRAMS (1 X 10-3 GRAMS)
                                                                                        MG
               L * MEASURED VALUE FOR A LAB DUPLICATE SAMPLE
                                                                                        MGD
                                                                                              = MILLION GALLONS PER DAY
               M = MEASURED VALUE FOR LAB BLANK
                                                                                              = MILES PER HOUR
               N = MEASURED CONCENTRATION OF FIELD SPIKED DUPLICATE
                                                                                        HV
                                                                                              = MILLIVOLT
                                                                                        M/F
M2
               P = MEASURED VALUE FOR PERFORMANCE STANDARD
                                                                                             = MALE/FEMALE
= SQUARE METER
               R = CAL INCREASED CONCENTRATION RESULTING FROM LAB SPIKE
                                                                                        M 3
               S = MEASURED CONCENTRATION OF LAB SPIKED SAMPLE
                                                                                              = CUBIC METER
               T = TRUE VALUE OF PERFORMANCE STANDARD
                                                                                        N A
                                                                                              = NOT APPLICABLE
               W = MEASURED CONCENTRATION OF LAB SPIKED DUPLICATE
                                                                                        NG
                                                                                              = NANOGRAMS (1 X 10-9 GRAMS)
               Y = MEASURED CONCENTRATION OF FIELD SPIKED SAMPLE
                                                                                        NTU
                                                                                              = NEPHELOMETRIC TURBIDITY UNITS
                                                                                       PC/L = PICO (1 X 10-12) CURRIES PER LITER
PG = PICOGRAMS (1 X 10-12 GRAMS)
P/CM2 = PICOGRAMS PER SQUARE CENTIMETER
               Z = CAL INCREASED CONCENTRATION RESULTING FROM FIELD SPIKE
               1 = MEASURED VALUE OF FIRST SPIKED REPLICATE
               2 = MEASURED VALUE OF SECOND SPIKED REPLICATE
               3 = MEASURED VALUE OF THIRD SPIKED REPLICATE
                                                                                        SCH = STANDARD CUBIC METER (1 ATM, 25 C)
               4 = MEASURED VALUE OF FOURTH SPIKED REPLICATE
                                                                                        SQ FT = SQUARE FEET
                                                                                             = STANDARD UNITS (PH)
               5 = MEASURED VALUE OF FIFTH SPIKED REPLICATE
                                                                                        SU
                                                                                              = MICROGRAMS (1 X 10-6 GRAMS)
               6 = MEASURED VALUE OF SIXTH SPIKED REPLICATE
                                                                                        UNHOS = MICRONHOS/CM (CONDUCTIVITY UNITS)
               7 = MEASURED VALUE OF SEVENTH SPIKED REPLICATE
             = MEDIA CODE (A ONE-LETTER CODE DESIGNATING THE MEDIA
                                                                                        U/CC2 = MICROGRAMS PER 100 SQUARE CENTINETERS
                                                                                        U/CM2 = MICROGRAMS PER SQUARE CENTIMETER
               OF THE SAMPLE):
               A = AIR H = HAZARDOUS WASTE/OTHER
                                                                                        1000G = 1000 GALLONS
               S = SOLID (SOIL, SEDIMENT, SLUDGE)
T = TISSUE (PLANT & ANIMAL)
                                                                                        +/- = POSITIVE/NEGATIVE
                                                                                              = NUMBER
                                                                            DATA QUALIFIERS = SPECIFIC CODES USED IN CONJUNCTION WITH
               W = WATER (GROUND WATER, SURFACE WATER, WASTE WATER,
                                                                                        DATA VALUES TO PROVIDE ADDITIONAL INFORMATION
                   DRINKING WATER)
DESCRIPTION = A SHORT DESCRIPTION OF THE LOCATION WHERE SAMPLE WAS
                                                                                        ON THE REPORTED RESULTS, OR USED TO EXPLAIN
                                                                                        THE ABSENCE OF A SPECIFIC VALUE:
               COLLECTED
                                                                                        BLANK = IF FIELD IS BLANK, NO REMARKS OR
AIRS/STORET LOC. NO. = THE SPECIFIC LOCATION ID NUMBER OF EITHER OF
                         THESE NATIONAL DATABASE SYSTEMS, AS APPROPRIATE
                                                                                                QUALIFIERS ARE PERTINENT. FOR FINAL
DATE/TIME INFORMATION = SPECIFIC INFORMATION REGARDING WHEN THE SAMPLE
                                                                                                REPORTED DATA, THIS MEANS THAT THE
                                                                                                VALUES HAVE BEEN REVIEWED AND FOUND
                          WAS COLLECTED
                                                                                                TO BE ACCEPTABLE FOR USE.
                          BEG. DATE = DATE SAMPLING WAS STARTED
                          BEG. TIME = TIME SAMPLING WAS STARTED
                                                                                      I = INVALID SAMPLE/DATA - VALUE NOT REPORTED
                          END DATE = DATE SAMPLING WAS COMPLETED
                                                                                      J = DATA REPORTED BUT NOT VALID BY APPROVED
                          END TIME = TIME SAMPLING WAS COMPLETED
                                                                                            OC PROCEDURES
                                                                                      K = ACTUAL VALUE OF SAMPLE IS < VALUE REPORTED
L = ACTUAL VALUE OF SAMPLE IS > VALUE REPORTED
M = DETECTED BUT BELOW THE LEVEL OF REPORTED
                          NOTE: A GRAB SAMPLE WILL CONTAIN ONLY BEG.
                                DATE/TIME
                                A TIMED COMPOSITE SAMPLE WILL CONTAIN
                                BOTH BEG AND END DATE/TIME TO DESIGNATE
                                                                                            VALUE FOR ACCURATE QUANTIFICATION
                                DURATION OF SAMPLE COLLECTION
                                                                                     O = PARAMETER NOT ANALYZED
OTHER CODES
                                                                                      U = ACTUAL VALUE OF SAMPLE IS < THE MEASUREMENT
               V = VALIDATED
                                                                                            DETECTION LIMIT (REPORTED VALUE)
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COMPOUND	UNITS 001	001 Y	002	002 Y	003	
APO1 PCB-AROCLOR 1016, GFF/PUF	UG/H3:0.0013	v :	0.0013	U :	0.0013	
APO2 PCB-AROCLOR 1221, GFF/PUF	:UG/M3:0.0025	U	0.0025	v	0.0025	U
APO3 PCB-AROCLOR 1232, GFF/PUF	:UG/M3:0.0025	U :	0.0025	U	0.0025	U
APO4 PCB-AROCLOR 1242, GFF/PUF	: UG/H3:0.052		0.018		0.11	
APOS PCB-AROCLOR 1248, GFF/PUF	:UG/M3:0.0013	U	0.0013	V	0.0013	U
APO6 PCB-AROCLOR 1254, GFF/PUF	:UG/M3:0.0013	U	0.0013	V	0.0013	Ü
APO7 PCB-AROCLOR 1260, GFF/PUF	:uG/M3:0.0013	u :460	0.0013	U :430	0.0013	Ü
ZZO1 SAMPLE NUMBER	NA 001	001	002	002	003	
2202 ACTIVITY CODE	NA RZZJJ	RZZJJ	RZ3JJ	RZ3JJ	RZ3JJ	

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COMPOUND	UNITS	003 Y	004 •	004 Y	010 F	011
APO1 PCB-AROCLOR 1016, GFF/PUF	.ug/m3:		0.0013 U	:	0.0013 U	:
APO2 PCB-AROCLOR 1221, GFF/PUF	UG/M3		0.0025 U	:	0.0025 U	:
APO3 PCB-AROCLOR 1232, GFF/PUF	UG/M3:		0.0025 U	:	0.0025 U	
APO4 PCB-AROCLOR 1242, GFF/PUF	UG/M3		0.0013 U		0.0013 U	
APOS PCB-AROCLOR 1248, GFF/PUF	uG/M3:		0.060		0.0013 U	:
APO6 PCB-AROCLOR 1254, GFF/PUF	UG/M3:		0.0013 U		0.0013 U	:
APO7 PCB-AROCLOR 1260, GFF/PUF	UG/M3:4	10	0.0013 U	520	0.0013 U	:
HC11 PCB - AROCLOR 1016, WIPE	UGCM2:				:	0.0040 U
HC12 PCB - AROCLOR 1221, WIPE	:UGCM2					0.0030 U
HC13 PCB - AROCLOR 1232, WIPE	UGCH2:					0.0010 U
HC14 PCB - AROCLOR 1242, WIPE	UGCM2			:		0.0040 U
HC15 PCB - AROCLOR 1248, WIPE	UGCH2:			:		0.0040 U
HC16 PCB - AROCLOR 1254, WIPE	:UGCM2:			:		0.0040 U
HC17 PCB - AROCLOR 1260, WIPE	UGCM2:			:		0.0010 U
ZZO1 SAMPLE NUMBER	NA :0	03	004	004	010	011
ZZO2 ACTIVITY CODE	NA R	Z3JJ	RZ3JJ	:RZ3JJ	RZ3JJ	RZ3JJ

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COMPOUND	UNITS	012	013	014	015	016
HC11 PCB - AROCLOR 1016, WIPE	: UGCM2:0	.0040 U	: 0.0040 U	:0.0040 U	0.0040 U	0.0040 U :
HC12 PCB - AROCLOR 1221, WIPE	UGCM2:0	.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U
HC13 PCB - AROCLOR 1232, WIPE	UGCM2:0	.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 u
HC14 PCB - AROCLOR 1242, WIPE	UGCM2:0	.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U
HC15 PCB - AROCLOR 1248, WIPE	UGCM2:0	.0040 U	0.0040 U	0.0040 U	0.0040 U	0.027
HC16 PCB - AROCLOR 1254, WIPE	. UGCM2:0	.0040 U	0.0040 U	0.0040 U	0.0040 U	0.020
HC17 PCB - AROCLOR 1260, WIPE	UGCM2:0	.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0094
ZZO1 SAMPLE NUMBER	NA O	12	013	014	015	016
ZZOZ ACTIVITY CODE	NA R	2311	RZ3JJ	RZ3JJ	RZ3JJ	RZ3JJ

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COMPOUND	UNITS	017	018	019	020	021
HC11 PCB - AROCLOR 1016, WIPE	UGCM2:0.0	040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 u
HC12 PCB - AROCLOR 1221, WIPE	. UGCM2:0.0	030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U
HC13 PCB - AROCLOR 1232, WIPE	. necus:0.0	010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
HC14 PCB - AROCLOR 1242, WIPE	. UGCM2:0.0	040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U
HC15 PCB - AROCLOR 1248, WIPE	. UGCH2:0.0	24	0.014	0.085	0.0040 U	0.025
HC16 PCB - AROCLOR 1254, WIPE	: UGCM2:0.0	040 U	0.034	0.077	0.0040 U	0.011
HC17 PCB - AROCLOR 1260, WIPE	UGCM2:0.0	010 U	0.013	0.023	0.0010 U	0.0010 U
2201 SAMPLE NUMBER	NA :017		018	019	020	021
ZZOZ ACTIVITY CODE	NA RZ3	11	RZ3JJ	RZ3JJ	RZ3JJ	RZ3JJ

ANALYSIS REQUEST DETAIL REPORT ACTIVITY: 4-RZ3JJ

COMPOUND	UNITS 022	022 D	023	024	025	
HC11 PCB - AROCLOR 1016, WIPE	UGCH2 0.0040	U :0.0040	U 0.0040	U 0.0040	U 0.0040	: U
HC12 PCB - AROCLOR 1221, WIPE	UGCM2:0.0030	U :0.0030	U :0.0030	U 0.0030	U :0.0030	Ū
HC13 PCB - AROCLOR 1232, WIPE	UGCM2:0.0010	U 0.0010	U 0.0010	U 0.0010	U 0.0010	Ü
HC14 PCB - AROCLOR 1242, WIPE	UGCM2:0.0040	U 0.0040	u 0.0040	U 0.0040	U 0.0040	Ü
HC15 PCB - AROCLOR 1248, VIPE	:UGCM2:0.036	0.049	0.14	0.072	0.014	
HC16 PCB - AROCLOR 1254, WIPE	:UGCM2:0.066	0.067	0.20	0.14	0.018	
HC17 PCB - AROCLOR 1260, WIPE	UGCH2: 0.17 ) _Qa	(0.24)	0.17	0.090	0.039	
ZZO1 SAMPLE NUMBER	NA :022	022	023	024	025	
ZZOZ ACTIVITY CODE	:NA :RZ3JJ	:RZ3JJ	RZZJJ	:RZ3JJ	:RZ3JJ	:

UNITS	026	027		028		029		030	
UGCM2	0.0040 U	0.0040	U	0.0040	U	0.0040	Ū	0.0040	:
UGCM2	0.0030 U	0.0030	U	0.0030	U	0.0030	ับ	0.0030	U
UGCM2	0.0010 U	0.0010	U	0.0010	U	0.0010	U	0.0010	ับ
UGCM2	0.0040 U	0.0040	U	0.0040	U	0.0040	U	0.0040	U.
UGCM2	0.20	0.070		0.64		0.39		0.32	
UGCM2	0.47	(:0.10		0.53		0.69		0.46	
UGCM2	0.10	0.040		0.073		0.14		0.11	
: NA	026	:027		028		029		030	:
NA	RZ3JJ	: RZ3JJ	:	RZ3JJ		RZ3JJ		RZ3JJ	:
	UGCM2 UGCM2 UGCM2 UGCM2 UGCM2 UGCM2	UGCM2: 0.0040 U UGCM2: 0.0030 U UGCM2: 0.0010 U UGCM2: 0.0040 U UGCM2: 0.20 UGCM2: 0.47 UGCM2: 0.47	UGCM2: 0.0040 U : 0.0040  UGCM2: 0.0030 U : 0.0030  UGCM2: 0.0010 U : 0.0010  UGCM2: 0.0040 U : 0.0040  UGCM2: 0.20 : 0.070  UGCM2: 0.47 (: 0.10  UGCM2: 0.10 : 0.040  NA : 026 : 027	UGCM2: 0.0040 U: 0.0040 U  UGCM2: 0.0030 U: 0.0030 U  UGCM2: 0.0010 U: 0.0010 U  UGCM2: 0.0040 U: 0.0040 U  UGCM2: 0.20 : 0.070  UGCM2: 0.47 (: 0.10  UGCM2: 0.10 : 0.040  NA : 026 : 027	UGCM2:0.0040 U:0.0040 U:0.0040  UGCM2:0.0030 U:0.0030 U:0.0030  UGCM2:0.0010 U:0.0010 U:0.0010  UGCM2:0.0040 U:0.0040 U:0.0040  UGCM2:0.20 :0.070 (0.64  UGCM2:0.47 (0.10 :0.53  UGCM2:0.10 :0.040 :0.073  NA :026 :027 :028	UGCM2: 0.0040 U: 0.0040 U: 0.0040 U  UGCM2: 0.0030 U: 0.0030 U: 0.0030 U  UGCM2: 0.0010 U: 0.0010 U: 0.0010 U  UGCM2: 0.0040 U: 0.0040 U: 0.0040 U  UGCM2: 0.20 : 0.070 (0.64 U  UGCM2: 0.47 (: 0.10 : 0.53 U  UGCM2: 0.10 : 0.040 : 0.073 U  NA : 026 : 027 : 028	UGCM2: 0.0040 U: 0.0040 U: 0.0040 U: 0.0040  UGCM2: 0.0030 U: 0.0030 U: 0.0030 U: 0.0030  UGCM2: 0.0010 U: 0.0010 U: 0.0010 U: 0.0010  UGCM2: 0.0040 U: 0.0040 U: 0.0040 U: 0.0040  UGCM2: 0.20 : 0.070 (0.64 (0.39)  UGCM2: 0.47 (: 0.10 : 0.53 (0.69)  UGCM2: 0.10 : 0.040 : 0.073 (0.14)  NA : 026 : 027 : 028 : 029	UGCM2: 0.0040 U : 0.0040 U : 0.0040 U : 0.0040 U  UGCM2: 0.0030 U : 0.0030 U : 0.0030 U : 0.0030 U  UGCM2: 0.0010 U : 0.0010 U : 0.0010 U : 0.0010 U  UGCM2: 0.0040 U : 0.0040 U : 0.0040 U : 0.0040 U  UGCM2: 0.20 : 0.070 (0.64	UGCM2: 0.0040       U: 0.0040       U: 0.0040       U: 0.0040       U: 0.0040       U: 0.0040         UGCM2: 0.0030       U: 0.0030       U: 0.0030       U: 0.0030       U: 0.0030       U: 0.0030         UGCM2: 0.0010       U: 0.0010       U: 0.0010       U: 0.0010       U: 0.0010       U: 0.0040         UGCM2: 0.0040       U: 0.0040       U: 0.0040       U: 0.0040       U: 0.0040       U: 0.0040         UGCM2: 0.20       0.070       (0.64       0.39       0.32         UGCM2: 0.47       (:0.10       :0.53       (0.69       0.46         UGCM2: 0.10       :0.040       :0.073       (0.14       :0.11         NA       :026       :027       :028       :029       :030

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COMPOUND	UNITS 031	032	033	034	035
HC11 PCB - AROCLOR 1016, WIPE	UGCM2:0.0040	U :0.0040	U :0.0040	U 0.0040	U 0.0040 U
HC12 PCB - AROCLOR 1221, WIPE	UGCM2:0.0030	U :0.0030	U :0.0030	u :0.0030	U 0.0030 U
HC13 PCB - AROCLOR 1232, WIPE	UGCM2:0.0010	U :0.0010	U 0.0010	U 0.0010	U 0.0010 U
HC14 PCB - AROCLOR 1242, WIPE	: UGCM2:0.0040	U :0.0040	U 0.0040	U 0.0040	บ :0.0040 บ
HC15 PCB - AROCLOR 1248, WIPE	:UGCM2:0.055	0.0078	0.076	0.0040	U :0.051
HC16 PCB - AROCLOR 1254, WIPE	: UGCM2:0.30	0.038	0.25	0.028	0.12 ,
HC17 PCB - AROCLOR 1260, WIPE	: UGCM2 \$0.16	0.043	0.095	0.011	0.029
ZZO1 SAMPLE NUMBER	:NA :031	:032	033	034	035
2202 ACTIVITY CODE	NA RZZJJ	RZ3JJ	RZ3JJ	RZ3JJ	RZ3JJ

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COMPOUND	UNITS	036		037	•	038		039		040	
HC11 PCB - AROCLOR 1016, WIPE	UGCH2	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	บ
HC12 PCB - AROCLOR 1221, WIPE	UGCM2	0.0030	U	0.0030	U	0.0030	U	0.0030	U	0.0030	U
HC13 PCB - AROCLOR 1232, WIPE	UGCM2	0.0010	Ü	0.0010	U	0.0010	U	0.0010	U	0.0010	U
HC14 PCB - AROCLOR 1242, WIPE	UGCM2	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U
HC15 PCB - AROCLOR 1248, WIPE	UGCM2	0.089	(	0.40		0.27		0.052		0.0040	U
HC16 PCB - AROCLOR 1254, WIPE	UGCM2	0.21	(	0.34	,	0.99		0.097		0.0040	U
HC17 PCB - AROCLOR 1260, WIPE	UGCM2	0.087	\	0.28		0.15		0.065		0.0010	U
ZZO1 SAMPLE NUMBER	NA .	036	<b></b> :	037		038		039		040	
2202 ACTIVITY CODE	NA	RZ3JJ	:	RZ3JJ		RZ3JJ		RZ3JJ		RZ3JJ	

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COMPOUND	UNITS 0	41 042	043	044	045	
HC11 PCB - AROCLOR 1016, WIPE	UGCH2:0.004	0 U:		0.0040	u 0.0040	Ü
HC12 PCB - AROCLOR 1221, WIPE	UGCM2:0.003	0 u		0.0030	U 0.0030	V
HC13 PCB - AROCLOR 1232, WIPE	UGCM2:0.001	0 U	:	0.0010	U 0.0010	U
HC14 PCB - AROCLOR 1242, WIPE	UGCH2:0.004	0 U		0.0040	U 0.0040	Ü
HC15 PCB - AROCLOR 1248, WIPE	UGCM2:0.004	0 u		0.027	0.0040	U
HC16 PCB - AROCLOR 1254, WIPE	· UGCH2:0.025		:	0.099	0.0052	
HC17 PCB - AROCLOR 1260, WIPE	UGCM2:0.017		:	0.043	0.0010	Ū .
SGO7 SOLIDS, PERCENT	×	83	96	:	·: :	
SMO1 SILVER, TOTAL, BY ICAP	MG/KG:	6.15	U 6.15	U :	:	
SMO2 ALUMINUM, TOTAL, BY ICAP	MG/KG:	:5810	36900	:	:	:
SMO4 BARIUM, TOTAL, BY ICAP	:MG/KG:	:171	119	:	:	:
SMOS BERYLLIUM, TOTAL, BY ICAP	:MG/KG:	1.39	U 1.39	U :	:	:
SHOG CADMIUM, TOTAL, BY ICAP	MG/KG:	:23.2	:18.3	:	:	:
SMO7 COBALT, TOTAL, BY ICAP	: MG/KG:	:24.2	:33.1		:	:
SMOB CHRONIUM, TOTAL, BY ICAP	:MG/KG:	: 387	:572	:	:	:
SHO9 COPPER, TOTAL, BY ICAP	: MG/KG:	963	2460	:	:	:
SH10 IRON, TOTAL, BY ICAP	: MG/KG:	93700	178000	:		:
SM11 MANGANESE, TOTAL, BY ICAP	: MG/KG:	:578	1050	:	:	:
SM12 MOLYBDENUM, TOTAL, BY ICAP	: MG/KG:	6.37	6.65	:		:
SM13 NICKEL, TOTAL, BY ICAP	: MG/KG:	38.2	185			
SM14 LEAD, TOTAL, BY ICAP	: MG/KG:	· 2070 )	1170	:		:
SM15 ANTIHONY, TOTAL, BY ICAP	: MG/KG:	777	:12.7	:	:	:
SM18 THALLIUM, TOTAL, BY ICAP	: MG/KG:	:31.5	U :31.5	V	:	:
SM19 VANADIUM, TOTAL, BY ICAP	: MG/KG:	30.5	u :30.5	U	:	:
SM20 ZINC, TOTAL, BY ICAP	: MG/KG:	2880	:8510		:	:
SM21 CALCIUM, TOTAL, BY ICAP	: MG/KG:	:12100	:18800	:	:	:

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COMPOUND	UNITS 041	042	043	044	045
SM22 MAGNESIUM, TOTAL, BY ICAP	:MG/KG:	1730	18000	:	:
SH23 SODIUM, TOTAL, BY ICAP	MG/KG:	2660	1380		
SM24 POTASSIUM, TOTAL, BY ICAP	MG/KG:	970	476		
SH27 ARSENIC, TOTAL, BY AA	MG/KG:	14.8	51.3		
SM32 SELENIUM, TOTAL, BY AA	MG/KG:	3.62	U :3.62	U	
SP17 PCB-AROCLOR 1016	UG/KG:		1400	U	
P18 PCB-AROCLOR 1221	:UG/KG:		1200	U	:
P19 PCB-AROCLOR 1232	:UG/KG:		400	U	:
P20 PCB-AROCLOR 1242	UG/KG:		:380	U	
P21 PCB-AROCLOR 1248	UG/KG:		78,000		
P22 PCB-AROCLOR 1254	:UG/KG:		180	U	
P23 PCB-AROCLOR 1260	UG/KG:		250	U :	
STO9 CYANIDE, TOTAL	MG/KG:	1.73	1.90	:	
ZO1 SAMPLE NUMBER	NA :041	:042	043	:044	045
ZOZ ACTIVITY CODE	:NA :RZ3JJ	:RZ3JJ	:RZ3JJ	:RZ3JJ	:RZ3JJ

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COMPOUND	UNITS	046	047		048		049		050	
HC11 PCB - AROCLOR 1016, WIPE	UGCHZ		0.0040	u	0.0040	 U	0.0040	<del>-</del> -	0.0040	 U
HC12 PCB - AROCLOR 1221, WIPE	:UGCM2:		0.0030	<u>-</u> -	0.0030	U	0.0030	U	:0.0030	<u>-</u> U
HC13 PCB - AROCLOR 1232, WIPE	:UGCM2:		0.0010	U	0.0010	U	0.0010	U	:0.0010	<u>-</u> U
HC14 PCB - AROCLOR 1242, WIPE	:UGCM2:		0.0040	U	0.0040	U	0.0040	U	0.0040	u
HC15 PCB - AROCLOR 1248, WIPE	UGCM2:		3.33/		0.100		0.095		(0.102)	
HC16 PCB - AROCLOR 1254, WIPE	UGCM2:		(4.9)		0.068		(0.15)		(0.13)	
HC17 PCB - AROCLOR 1260, WIPE	UGCM2		(0.64)		0.043		0.033		0.026	
SGO7 SOLIDS, PERCENT	7 9	6			:		: :		:	
SHO1 SILVER, TOTAL, BY ICAP	: MG/KG:6	. 15	U		:		:		:	
SHO2 ALUMINUM, TOTAL, BY ICAP	: MG/KG:1	1300	:		:		: :		:	
SMO4 BARIUM, TOTAL, BY ICAP	: MG/KG:3	5.6	U :	·	:	<b>-</b>	:		:	
SHOS BERYLLIUM, TOTAL, BY ICAP	: MG/KG:1	. 39	U :		:		:		:	
SHO6 CADHIUH, TOTAL, BY ICAP	: MG/KG!4	0.6			:				:	
SHO7 COBALT, TOTAL, BY ICAP	: MG/KG:3	5.4	:		:				: :	
SHOR CHROMIUM, TOTAL, BY ICAP	: MG/KG:4	37	:		:				: :	·
SHOP COPPER, TOTAL, BY ICAP	:MG/KG:1	2000	:		:				:	
SM10 IRON, JOTAL, BY ICAP	:MG/KG:1	22000	:		:				: :	
SH11 MANGANESE, TOTAL, BY ICAP	:MG/KG:6	43	:		:				: :	
SH12 MOLYBDENUM, TOTAL, BY ICAP	:MG/KG:3	. 93	U :		:				: :	
SH13 NICKEL, TOTAL, BY ICAP	MG/KG:2	4.0	:		:				: :	
SM14 LEAD, TOTAL, BY ICAP	: MG/KG:2	170-	:		:				: :	
SM15 ANTIMONY, TOTAL, BY ICAP	:MG/KG:1	4.4	: <b></b>		:	:			; <del>-</del>	
SM18 THALLIUM, TOTAL, BY ICAP	: MG/KG:3	1.5	:- <b></b> u :		:	:				
SM19 VANADIUM, TOTAL, BY ICAP	: MG/KG:3	0.5	u :			:				
SM2O ZINC, TOTAL, BY ICAP	:MG/KG:8	600	:		:	:		:		
SM21 CALCIUM, TOTAL, BY ICAP	: MG/KG:6	5900	:- <del></del>	:		:		:		

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COMPOUND	UNITS 046	047	048	049	050	
SM22 MAGNESIUM, TOTAL, BY ICAP	: MG/KG: 6800	:	:	:		
SM23 SODIUM, TOTAL, BY ICAP	MG/KG:7720	:	:			
SM24 POTASSIUM, TOTAL, BY ICAP	MG/KG:683		:	:		
SM27 ARSENIC, TOTAL, BY AA	MG/KG:13.6				:	
SM32 SELENIUM, TOTAL, BY AA	: MG/KG: 3.62	U				
SP17 PCB-AROCLOR 1016	:UG/KG:140	U :				
SP18 PCB-AROCLOR 1221	:UG/KG:120	u :				
SP19 PCB-AROCLOR 1232	UG/KG:40	U				
SP20 PCB-AROCLOR 1242	UG/KG:38	U	:	:	:	
SP21 PCB-AROCLOR 1248	UG/KG:8900	:	:	:	:	
SP22 PCB-AROCLOR 1254	: UG/KG:18	<u>U</u>	:	<del>:</del> -	:	
SP23 PCB-AROCLOR 1260	UG/KG:25	U		:	:	
STO9 CYANIDE, TOTAL	:MG/KG:0.156	:	:	:	:	
ZZO1 SAMPLE NUMBER	:NA :046	:047	:048	049	:050	
ZZOZ ACTIVITY CODE	:NA :RZ3JJ	: RZ3JJ	: RZ3JJ	RZ3JJ	: RZ3JJ	

COMPOUND	UNITS	051		052		053		054		055	
HC11 PCB - AROCLOR 1016, WIPE	ugch2:0	.0040	<u>-</u> -	0.0040	U	0.0040	u	0.0040	Ū		
HC12 PCB - AROCLOR 1221, WIPE	: UGCH2: 0	.0030	U	0.0030	U	0.0030	U	0.0030	U		,
HC13 PCB - AROCLOR 1232, WIPE	UGCH2:0	.0010	U	0.0010	U	0.0010	U	0.0010	U	:	
HC14 PCB - AROCLOR 1242, WIPE	UGCM2:0	.0040	U	0.0040	บ	0.0040	U	0.0040	v		
HC15 PCB - AROCLOR 1248, WIPE	UGCM2:0	.0040	v	(0.11)		10		(3.7			
HC16 PCB - AROCLOR 1254, WIPE	UGCM2 0	. 013		0.18)		13 /		4.71			,
HC17 PCB - AROCLOR 1260, WIPE	UGCM2 O	.0010	U	0.0010	U	1.6		0.69			· <b></b>
SGO7 SOLIDS, PERCENT	: X					:				97	
SHOT SILVER, TOTAL, BY ICAP	MG/KG									7.84	
SHO2 ALUNINUM, TOTAL, BY ICAP	MG/KG					:				12900	
SHO4 BARIUM, TOTAL, BY ICAP	HG/KG					:				476	
SHOS BERYLLIUM, TOTAL, BY ICAP	MG/KG									1.39	U
SHO CADHIUM, TOTAL, BY ICAP	MG/KG:									29.4	
SHO7 COBALT, TOTAL, BY ICAP	MG/KG									37.3	
SMOS CHROMIUM, TOTAL, BY ICAP	MG/KG									412	
SMO9 COPPER, TOTAL, BY ICAP	MG/KG:									5110	
SH10 IRON, TOTAL, BY ICAP	MG/KG:									197000	
SH17 MANGANESE, TOTAL, BY ICAP	MG/KG:								:	1150	
SM12 MOLYBDENUM, TOTAL, BY ICAP	MG/KG		:						:	52.1	
SM13 NICKEL, TOTAL, BY ICAP	MG/KG								:	133	
SM14 LEAD, TOTAL, BY ICAP	MG/KG:									3840	
SHIS ANTIHONY, TOTAL, BY ICAP	MG/KG:									16.7	
SM18 THALLIUM, TOTAL, BY ICAP	MG/KG		:						:	31.5	U
SM19 VANADIUM, TOTAL, BY ICAP	MG/KG		:							30.5	U
SM2O ZINC, TOTAL, BY ICAP	MG/KG		:						:	22200	
SM21 CALCIUM, TOTAL, BY ICAP	: MG/KG:		:		:		:		:	27500	

## ANALYSIS REQUEST DETAIL REPORT

051

UNITS

:MG/KG:

:MG/KG:

:MG/KG:

:MG/KG:

:MG/KG:

:UG/KG:

:UG/KG:

:UG/KG:

:UG/KG:

:UG/KG:

:UG/KG:

:UG/KG:

:MG/KG:

:051

:RZ3JJ

: NA

: NA

ACTIVITY: 4-R23JJ

053

:053

:RZ3JJ

054

:054

:RZ3JJ

052

:052

:RZ3JJ

055 :5540 :1440 :887 :21.0 :3.62 U

:400

:380

:180

:250

:055

:50.5-

:RZ3JJ

:1500.000

VALIDATED DATA

U:

U :

U:

U :

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COMPOUND

SM22 HAGNESIUM, TOTAL, BY ICAP

SM23 SODIUM, TOTAL, BY ICAP

SM27 ARSENIC, TOTAL, BY AA
SM32 SELENIUM, TOTAL, BY AA

SP17 PCB-AROCLOR 1016

SP18 PCB-AROCLOR 1221

SP19 PCB-AROCLOR 1232

SP20 PCB-AROCLOR 1242

SP21 PCB-AROCLOR 1248

SP22 PCB-AROCLOR 1254

SP23 PCB-AROCLOR 1260

STO9 CYANIDE, TOTAL

ZZO1 SAMPLE NUMBER

ZZO2 ACTIVITY CODE

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COMPOUND	UNITS	056	F	057		058		059		060	
HC11 PCB - AROCLOR 1016, WIPE	UGCH2	0.0040	U	0.0040	U	0.0040	U	0.0040	U :	0.0040	: U:
HC12 PCB - AROCLOR 1221, WIPE	:UGCM2	0.0030	U	0.0030	U	0.0030	U	0.0030	U	0.0030	: U :
HC13 PCB - AROCLOR 1232, WIPE	UGCM2	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U :
HC14 PCB - AROCLOR 1242, WIPE	UGCH2	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U
HC15 PCB - AROCLOR 1248, WIPE	UGCM2	0.0040	U	0.011		(0.311)		0.82)		0.081	
HC16 PCB - AROCLOR 1254, WIPE	UGCH2	0.0040	U	0.027		0.27		1.1)	1	0.15	
HC17 PCB - AROCLOR 1260, WIPE	UGCH2:	0.0010	U	0.0010	U	0.063		2.5)	7	0.10)	
ZZO1 SAMPLE NUMBER	NA .	056		057		058		059		060	:
2202 ACTIVITY CODE	: NA :	RZ3JJ		RZJJ		RZ3JJ	:	RZ3JJ	· · · · · · · · · · · · · · ·	RZ3JJ	

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COMPOUND	UNITS	061		062		063		064 F		065	
HC11 PCB - AROCLOR 1016, WIPE	: UGCH2:	0.0040	U	0.0040	U	:		0.0040	<u>-</u> -	0.0040	: U
HC12 PCB - AROCLOR 1221, WIPE	ugch2:	0.0030	U	0.0030	U			0.0030	U	0.0030	; U
HC13 PCB - AROCLOR 1232, WIPE	UGCM2:	0.0010	U	0.0010	U			0.0010	U	0.0010	<u>-</u> :
HC14 PCB - AROCLOR 1242, WIPE	UGCM2	0.0040	U	0.0040	U			0.0040	U	0.0040	U
HC15 PCB - AROCLOR 1248, WIPE	UGCM2:	).52 ⁻ )		0.0040	U		•====	0.0040	ū	2400,	:
HC16 PCB - AROCLOR 1254, WIPE	UGCM2 (	.60)		160: 0				0.0040	Ū	34.)	:
HC17 PCB - AROCLOR 1260, WIPE	ugcn2	).23)	(	1200				0.0010	u	10-)	:
SGO7 SOLIDS, PERCENT	x		~			71				*******	:
SHO1 SILVER, TOTAL, BY ICAP	MG/KG:					6.15	U				:
SMO2 ALUMINUM, TOTAL, BY ICAP	MG/KG:		:			24900	:			*	:
SHO4 BARIUM, TOTAL, BY ICAP	MG/KG:		:			342			:		:
SMOS BERYLLIUM, TOTAL, BY ICAP	MG/KG:		:			1.39	U				:
SHO6 CADMIUM, TOTAL, BY ICAP	MG/KG		:			20.7					:
SHO7 COBALT, TOTAL, BY ICAP	MG/KG:		:			6.64	U				
SHOR CHROMIUM, TOTAL, BY ICAP	MG/KG:					39.3					:
SHO9 COPPER, TOTAL, BY ICAP	MG/KG:					1370					
SM10 IRON, TOTAL, BY ICAP	MG/KG					33100			:		:
SM11 MANGANESE, TOTAL, BY ICAP	MG/KG		:			197					
SM12 MOLYBDENUM, TOTAL, BY ICAP	MG/KG					15.6					:
SM13 NICKEL, TOTAL, BY ICAP	MG/KG:					23.6					
SM14 LEAD, TOTAL, BY ICAP	:MG/KG:					372					
SM15 ANTIMONY, TOTAL, BY ICAP	MG/KG	_				6.16					
SM18 THALLIUM, TOTAL, BY ICAP	MG/KG		:		:	31.5	U				
SM19 VANADIUM, TOTAL, BY ICAP	MG/KG:		:			30.5	U		:		
SM20 ZINC, TOTAL, BY ICAP	MG/KG				:	6940	:		:		
SM21 CALCIUM, TOTAL, BY ICAP	MG/KG:		:			15800	:		:		

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COMPOUND	UNITS 061	062	063	064 F	065
SM22 HAGNESIUM, TOTAL, BY ICAP	:MG/KG:	:	:1630		:
SM23 SODIUM, TOTAL, BY ICAP	MG/KG:		:885		
SM24 POTASSIUM, TOTAL, BY ICAP	:MG/KG:		894		
SM27 ARSENIC, TOTAL, BY AA	:MG/KG:		5.87		
SM32 SELENIUM, TOTAL, BY AA	:MG/KG:		3.62	U	
SP17 PCB-AROCLOR 1016	:UG/KG:		1400	U	:
SP18 PCB-AROCLOR 1221	:UG/KG:		1200	U	
SP19 PCB-AROCLOR 1232	UG/KG:		400	U	
SP20 PCB-AROCLOR 1242	UG/KG:		380	U	
SP21 PCB-AROCLOR 1248	UG/KG:		(:3300000)		
SP22 PCB-AROCLOR 1254	UG/KG:	:	180	U	•
SP23 PCB-AROCLOR 1260	UG/KG:		250	V	•
STO9 CYANIDE, TOTAL	MG/KG:		0.348		
ZZO1 SAMPLE NUMBER	NA :061	062	063	064	065
ZZOZ ACTIVITY CODE	NA RZZJJ	:RZ3JJ	:RZ3JJ	:RZ3JJ	:RZ3JJ

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COMPOUND	UNITS	066	067		068		069	
HC11 PCB - AROCLOR 1016, WIPE	ugch2:			:		:	0.0040 u	:
HC12 PCB - AROCLOR 1221, WIPE	UGCM2:					;	0.0030 U	:
HC13 PCB - AROCLOR 1232, WIPE	UGCM2			:			0.0010 U	
HC14 PCB - AROCLOR 1242, WIPE	UGCM2:	· · · · · · · · · · · · · · · · · · ·	;	:			0.0040 U	:
HC15 PCB - AROCLOR 1248, WIPE	UGCM2		:			;	0.71	:
HC16 PCB - AROCLOR 1254, WIPE	UGCM2		:				2.1	:
HC17 PCB - AROCLOR 1260, WIPE	UGCM2		:				0.84	
HP17 PCB-AROCLOR 1016	MG/KG:		:		0.014	U		:
HP18 PCB-AROCLOR 1221	:MG/KG:		:		0.012	U		
HP19 PCB-AROCLOR 1232	MG/KG:		:		0.0040	U		:
HP2O PCB-AROCLOR 1242	:MG/KG:		:		0.0037	U		
HP21 PCB-AROCLOR 1248	:MG/KG:		:	:	0.0053	U		
HP22 PCB-AROCLOR 1254	:MG/KG:			:	0.0018	U		
HP23 PCB-AROCLOR 1260	:MG/KG:			i	55)			
SGO7 SOLIDS, PERCENT	×		67					
SP17 PCB-AROCLOR 1016	:UG/KG:		1400	U :				
SP18 PCB-AROCLOR 1221	uG/KG:		1200	U :				
SP19 PCB-AROCLOR 1232	UG/KG:		400	U :				
SP20 PCB-AROCLOR 1242	uG/KG:		380	U				
SP21 PCB-AROCLOR 1248	ug/KG:		540	U				
SP22 PCB-AROCLOR 1254	UG/KG:		180	U :				
SP23 PCB-AROCLOR 1260	uG/KG:	(	1600000	:				
WP17 PCB-AROCLOR 1016	UG/L 0.3	15 U				:		::
WP18 PCB-AROCLOR 1221	UG/L 0.3	0 U				:		:
WP19 PCB-AROCLOR 1232	UG/L :0.1	0 U				:	***********	
WP20 PCB-AROCLOR 1242	UG/L 0.0	95 U	************	:		:		

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VALIDATED DATA

1 1 . . UNITS 066 067 068 069 COMPOUND UG/L :61 WP21 PCB-AROCLOR 1248 :UG/L :0.044 U : WP22 PCB-AROCLOR 1254 WP23 PCB-AROCLOR 1260 :UG/L :0.062 :NA :066 :067 :069 ZZO1 SAMPLE NUMBER NA :RZ3JJ :RZ3JJ :RZ3JJ :RZ3JJ 2202 ACTIVITY CODE

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ACTIVITY RZZJJ CARTER CARBURETOR

THE PROJECT LEADER SHOULD CIRCLE ONE - STORET, AIRS, OR ARCHIVE.

CIRCLE ONE: STORET

AIRS

ARCHIVE

FINAL DATA REPORT APPROVED BY PROJECT LEADER ON 04/06/94 10:03:50 BY

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